regulation is likely to be; TTCTGAGAA, and similar results can be obtained with this element termed SPI-GLE as with the longer, 52 bp element named SPI-GHRE.

Example 3. Multimeric SPI elements in front of a TK promoter give a better response.

K1 cont.

Reporters plasmids containing one to six copies of the 52bp SPI element fused to the TK promoter were constructed. The growth hormone responsiveness of these constructs was tested by transfection into a CHO cell line that stably expresses the rat growth hormone receptor DNA. Growth hormone stimulation of these cells showed that multimerization of SPI elements resulted in a larger growth hormone response.--

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In the Claims:

Please amend claims 1, 5, 8, 10, 15, 19, 23, 27, 30 and 44 to read as follows:

1. (Seventh Amendment) An in vitro method of enhancing the transcription of a gene in a DNA construct when the DNA construct is incorporated into the genome of a eukaryotic host cell, the method comprising:

(a) providing a DNA construct comprising a structural gene for a desired protein or polypeptide, a gene promoter upstream of and operably linked to the structural gene, and six copies of an enhancer element upstream of the promoter;

(b) transfecting the eukaryotic host cell to incorporate the DNA construct into the genome of the host cell; and

(c) exposing the DNA construct in the eukaryotic host cell to a hormone selected from the group consisting of lactogenic hormones, somatogenic hormones and mixtures thereof;

wherein the enhancer element comprises the nucleotide sequence TTCTGAGAA, with the proviso that the nucleotide sequence does not contain the DNA sequence of nucleotide sequence SEQ ID NO:1, and wherein the enhancer element is responsive to both lactogenic hormones and somatogenic hormones.

5. (Sixth Amendment) An enhancer element which when used in a DNA construct for transfection of a eukaryotic host cell is responsive to hormonal stimuli, said enhancer element consisting essentially of the nucleotide sequence TTCTGAGAA, wherein the enhancer element is responsive to both lactogenic hormones and somatogenic hormones when used in a DNA construct incorporated into the genome of a eukaryotic host cell.

8. (Fifth Amendment) An expression vector comprising a structural gene encoding a desired protein or polypeptide and a promoter, wherein the vector further comprises six enhancer elements, and further wherein each of the enhancer elements consists essentially of the nucleotide sequence SEQ ID NO:1.

10. (Sixth Amendment) An expression vector comprising a structural gene encoding a desired protein or polypeptide and a promoter, wherein the vector further comprises six enhancer elements, and further wherein each of the enhancer elements consists essentially of the nucleotide sequence TTCTGAGAA.

15. (Third Amendment) The enhancer element of claim 5, wherein the enhancer element is responsive to signals generated from both growth hormone and prolactin receptors when used in a DNA construct incorporated into the genome of a eukaryotic host cell.

19. (Fifth Amendment) An in vitro method of enhancing the transcription of a gene in a DNA construct, the method comprising:

(a) providing a first DNA construct comprising a structural gene and a promoter upstream of the structural gene,

(b) incorporating the nucleotide sequence consisting of TTCTGAGAA into the first DNA construct upstream of the promoter, thereby producing a second DNA construct;

(c) transfecting a eukaryotic host cell to incorporate the second DNA construct into the genome of the host cell; and

(d) exposing the second DNA construct in the eukaryotic host cell to a hormone selected from the group consisting of lactogenic hormones, somatogenic hormones and mixtures thereof.

23. (Fourth Amendment) An enhancer element responsive to a hormone selected from the group consisting of lactogenic hormones, somatogenic hormones and mixtures thereof when the enhancer element is in a DNA construct incorporated into a genome of a eukaryotic host cell; wherein the enhancer element consists essentially of the nucleotide sequence TTCTGAGAA.

27. (Fifth Amendment) An expression vector comprising a structural gene encoding a protein, a promoter upstream of and operably linked to the structural gene, and at least one enhancer element consisting essentially of the nucleotide sequence TTCTGAGAA, wherein the enhancer element is incorporated into the expression vector upstream of the promoter.

30. (Fourth Amendment) A DNA construct comprising a structural gene encoding a protein, a promoter upstream of and operably linked to the structural gene, and at least one enhancer element consisting essentially of the nucleotide sequence TTCTGAGAA, wherein the enhancer element is incorporated into the DNA construct upstream of the promoter.

44. (Fourth Amendment) An isolated DNA construct comprising a promoter operably linked to a structural gene downstream from said promoter, and six repeats of an enhancer element upstream from said promoter, wherein the enhancer element consists essentially of the sequence TTCTGAGAA.